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ENTERPRISE TECHNOLOGY STRATEGIES

North Carolina Statewide Technical Architecture

Web Site Development Guidelines

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Introduction

The guidelines in this document are intended to aid web site developers when building, extending or maintaining the State of North Carolina's family of websites. They should be applied to any work relating to the states family of web sites, either by internal staff or third party contractors.

Where a particular issue has not been covered here, developers should refer to their agencies web development team. Developers should also be aware of the context in which this document exists. This document provides web development guidelines; it is not intended to be a web style guide. It is strongly encouraged that agencies develop a web style guide to be used on all of their web development efforts that is consistent with the guidelines provided in this document.

Purpose

This document consists of a set of development and design guidelines for web publishers creating pages intended for an external audience.

These guidelines have been developed with input from personnel from the Enterprise Technology Strategies office.

Universal Design

1. It is the policy of the State of North Carolina that information and services on state web sites are designed to be accessible to people with disabilities. It is the responsibility of the agency's web site developers to become familiar with the guidelines for achieving universal accessibility and to apply those principles in designing the website. The World Wide Web Consortium (W3C) provides a list of evaluation tools (<http://www.w3c.org/WAI/ER/existingtools.html>) to perform static tests of web sites for compliance with W3C Web Content Accessibility Guidelines (WCAG) and U.S. Section 508 accessibility guidelines. Agencies are strongly encouraged to analyze their web sites and provide validation of compliance through the use of an automated tool prior to production implementation.
2. Include a document type declaration (DOCTYPE) in your web pages. This declares what version of HTML you are using in your documents, and assists the browser in rendering your pages correctly.
3. Maintain a standard page layout and navigation method throughout the web site, which does not utilize frames.

4. Use headings, lists, and consistent structure.
5. Avoid the unnecessary use of icons, graphics and photographs.
6. Use plain backgrounds and simple layouts to improve the readability of text.
7. Ensure that foreground and background color combinations provide sufficient contrast when viewed by someone having color deficits or when viewed on a black and white screen.
8. Provide a text-only index or site map of your site.
9. Provide a means of feedback to a single point of contact.
10. Include textual as well as graphical navigation aids.
11. Provide a printer friendly version of web page.
12. Do not abbreviate dates; for example, use December 1, 2000 rather than 12/1/00.
13. Ensure that dynamic content is accessible or provide an alternative presentation of the page.
14. Avoid movement in pages, like animated gifs or blinking text.
15. Test your web pages with a variety of web technologies; including, but not limited to, graphical browsers with the images turned off, browsers with JavaScript disabled, a text based browser, using only your keyboard, and using assistive technology.
16. Do not use HTML tags or server-side extensions, which are supported by only one browser.
17. Check web pages and images at different monitor resolutions, monitor sizes and color depth settings.
18. Hyperlinks to downloadable files should include a text description that includes the file size and file type.
19. Downloadable content, such as documents in PDF or forms, must also adhere to W3C and U.S. Section 508 accessibility guidelines.
20. You may consider the development of a text-only version of the document or site to facilitate access not only by people with visual impairments, but users of non-graphical browsers or slow Internet connections. However, this option requires considerable resources and discipline to keep the two versions of the content synchronized.

21. Secure the User Interface (UI) by not providing revealing information. For example, hide suffixes and disable “view source.”
22. If cookies are used, make sure they are encrypted.

Text Based Design

23. End all sentences, headers, list items, etc. with a period or other suitable punctuation.
24. Chose a standard font and size for general text.
25. Avoid using side-by-side presentation of text, for example, columns and tables.
26. Provide alternate versions of forms; Alternatives might include a simple list or paragraph of what is needed to submit a form entry and then provide a link to a mailto: feature or simply an appropriate e-mail address to send the text.
27. Minimize the number of hyperlinks that appear in a single line of text - one hyperlink is best; consider using vertical lists for links wherever possible.
28. Avoid/Limit the use of bitmap images of text, unless a textual alternative is also provided.
29. Consider beginning lists with a descriptive identifier and the number of items so the users will have an idea of what the list represents and the total length of the list. Using numbers instead of bullets will also help the user to remember items that interest them.
30. Provide meaningful and descriptive text for hyperlinks, don't use short hand, e.g. "click here"; instead "Follow this link to our News Page". (Screen readers can search specifically for linked text, "click here" provides no indication of where the link will take them.) If documents are provided in a specialized format (e.g. PDF (Portable Document Format), etc.) provide the equivalent text in plain text or HTML format.

Graphics and Images

31. Keep the number of colors in your images to a minimum.
32. Minimize the file size and number of images you display on any one page.
33. Design your background image at the lowest color depth and resolution you can.
34. Ensure that text can always be clearly read at any location against the background.
35. Avoid/Limit using image maps; provide an alternate text-based method of selecting options when image maps are used, e.g., separate HTML page or menu bar.

36. Use the ALT attribute with image tags to provide associated, meaningful, text for all images, pictures and graphical bullets.
37. Consider using the "longdesc" attribute of the IMG tag to specify a link to a long description of the image. This description should supplement the short description provided using the ALT attribute. For example, a painting, graph, or agency logo could be given a description so that blind and other text-only users can develop a mental picture of the image.
38. If image files are used for graphical bullets in place of standard HTML, it is best to use a bullet character like an asterisk " * " or "o" in the ALT = text field of the tag (rather than describing the bullet as: "This is a small purple square").

Audio Visual Design

39. Provide text transcriptions of all video clips.
40. If possible, include captions or text tracts with a description or sound of the movie.
41. Provide descriptive passages about speakers and events being shown through video clips.
42. Give a written description of any critical information that is contained in audio files contained on your website.
43. If you link to an audio file, inform the user of the audio file format and file size.